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Air Vehicles Directorate enhances simulation capability

by Philip Ghearing, Air Vehicles Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — The Air Vehicles Directorate, Control Sciences Division, announced the acquisition of two new Infinity Cube display systems for use with the new Simulation Based Research and Development Program. The Infinity Cubes are developed by SEOS Inc. and will be used along with the prototype unit already in operation.

The Infinity Cube is a highly advanced form of display intended for use in flight simulators to provide lifelike imaging complete with depth perspective. Whereas most simulators utilize a rear projected, flat screen image displayed in front of the user to provide visual representations, the Infinity Cube uses a dome display to surround the user with several screens providing a near seamless 220° x 160° field-of-view. But the real payoff is the image display itself. Not only is it three dimensional, it's collimated so that perspectives on objects of varying distances will change appropriately as you move your head. This will get rid of head motion parallax errors and also allow the use of flight worthy helmet-mounted-displays instead of developing unique helmet mounted display's for non-collimated simulation display systems.

VA's Simulation Based Research And Development Program is excited about the arrival of the new units and, after a setup and installation phase, should have them fully operational by September. Once up and running, the units will greatly enhance research in air-to-air, air-to-ground, air refueling, and mixed force operations. There is also the potential for support to broader based research including weapon systems analysis and war-gaming activities. @